

PATENT**REMARKS**

Claims 21-54 are pending. Claims 1-20 were previously cancelled without prejudice. Claims 30-31 and 35-36 are amended. Applicants believe that the present application is in condition for allowance, which prompt and favorable action is respectfully requested.

I. Drawings

The drawings have been objected for including certain reference characters that are not in the drawings. The reference characters have been removed. Replacement sheets are attached as Appendix A. Applicant asserts that no new matter is being added.

II. Claim Objections

Claims 30-31 and 35-36 have been objected to as informal because a last symbol is identified, but then later elements refer to the last symbol when they should refer to the last symbol. Appropriate correction has been made.

III. Rejection Under 35 U.S.C. 112

Claim 1 has been rejected under 35 U.S.C. 112. Claim 1 was previously cancelled, so the applicant believes any rejection of claim 1 is moot.

IV. REJECTION UNDER 35 U.S.C. §102

The Office Action states that claims 21-23 and 25 are rejected under 35 U.S.C. §102(b) as allegedly anticipated by Knutson et al. (USP 6,563,862). The rejection is respectfully traversed in its entirety.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987), citing 35 U.S.C. §102. See also MPEP § 2131.

The applicant assumes that the examiner meant to cite 35 U.S.C. 102(e), rather than 102(b), since the applicant's filing date is before the issue date of Knutson. Applicant will

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proceed as if claims 21-23 and 25 were rejected as if allegedly unpatentable under 35 U.S.C. 102(3). Referring to claim 21, the applicant claims, among other things "transmitter circuit having fixed *symbol* timing" (emphasis added).

The office action cites Knutson col. 8, line 24 for the assertion that Knutson discloses the claimed "transmitter having fixed symbol timing." Knutson col. 8, line 24 actually states "Clocks 411, 221 are fixed timebases and thus not VCXO is required. Thus, Knutson teaches fixed timebases or clocks, not fixed symbol timing.

To clarify further that the symbol timing of Knutson is variable, the applicant quotes here the entire paragraph including the above quote regarding fixed timebases:

Clocks 411, 221 are fixed timebases, and thus no VCXO is required. Transmitter 11 thus transmits a signal to receiver 122 at a given symbol (chip) rate, in accordance with its timebase 411. DAC 412 of transmitter 111 converts input symbols into analog samples constituting a signal, transmitted via RF channel 420. This analog signal is received by ADC 433 of receiver 122, which provides digital samples to interpolator 431, which samples are taken at an initial fixed sample rate derived from local clock or timebase 221, which is at least 2x the maximum symbol (or chip) rate of the signal transmitted by the base unit. If receiver 122 samples the input signal at greater than twice the transmitter symbol rate, receiver 122 can adapt and receive input any symbol rates less than half the initial fixed sample rate. For example, for an initial sample clock (221) frequency of 62 MHz, symbol rates between 20 MSymbols/sec and 30 MSymbols/sec can be supported.

Knutson col. 8, lines 24 to 40.

Clearly, an initial symbol rate is fixed, but after the initial symbol rate, then the symbol rate can vary. Accordingly, Knutson does not disclose, at least, the claimed "the transmitter having fixed symbol timing", and therefore, claim 21 is patentably distinct from Knutson for at least this reason.

Claims 22-25 depend from claim 21 and are therefore allowable for at least the reasons described above with respect to claim 21.

V. REJECTION UNDER 35 U.S.C. §103

The Examiner rejected claims 26-36 under 35 U.S.C. §103 as being allegedly unpatentable over Dagdeviren et al. (EP 0933897) in view of Spruyt et al. (EP 0820171). This rejection is traversed as follows.

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The basic requirements of a prima facie case of obviousness under 35 USC 103 are: (1) there must be some suggestion or motivation to modify the reference or to combine the reference teachings; (2) there must be a reasonable expectation of success in modifying the reference or combining the references; and (3) the prior art must teach or suggest all the claim limitations. MPEP § 2143.

The Applicants submit that Dagdeviren and Spruyt do not, either individually or in combination, teach or suggest at least any of the claimed limitation of claim 26 referring to dwells. The examiner states that Dagdeviren refers to a dwell as a symbol. This definition is expressly contrary to the applicants definition. The applicant defines a dwell as multiple symbols. This is advantageous because the tones used remain the same during a dwell (for multiple symbols). This may help, for example, by having a longer duration for channel estimation.

Claim 26 is thus allowable at least because Dadeviren and Spruyt do not individually or in combination teach or suggest a multiple symbol dwell.

Further, neither Spruyt nor Dagdeviren teaches or suggests the claimed 26 "decreasing the number of samples in one of the first symbol and the last symbol." As the examiner states, alignment in Spruyt is done by deleting or duplicating symbols. But deleting or duplicating *symbols* is not the same as decreasing the number of *samples*. A sample is typically one measurement in an ADC. Typically, a symbol comprises more than one sample. Samples make up symbols. Accordingly, Dagdeviren and Spruyt either individually or in combination, do not teach or suggest the claimed limitation.

Claims 27-31 depend from claim 26 and are therefore patentable for at least the reasons described above with respect to claim 26.

Claims 32 is a device claim with similar scope to method claim 26. Accordingly, claim 32, and claims 33-36, which depend from claim 32, are patentable for the reasons discussed above with respect to claim 26.

Claim 37 claims among other things "said step of adjusting symbol timing of the transmitter including selecting on of a first and a last symbol in a ddwell to be modified to adjust the transmitter symbol timing, said dwell being a period of time comprising multiple symbol tones prior to switching to another tone or set of tones." As described above with respect to claim 26, neither Knutson, Dagdeviren, nor Spruyt teaches or suggests multiple symbol dwells.

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Accordingly, claim 37 and claims 38-50, which depend from claim 37, are patentably distinct from Knutson, Dagdeviren and Spruyt, individually and in combination.

Claim 51 claims multiple symbol dwells as well, so claim 51 and claims 52-54, which depend from claim 51, are patentably distinct from Knutson, Dagdeviren and Spruyt, individually and in combination.

VI. OTHER REFERENCES

The Applicants have reviewed the other references made of record by the Office Action. The Applicants assert that the claimed invention is patentably distinct from the other references made of record.

REQUEST FOR ALLOWANCE

In view of the foregoing, the Applicants submits that all pending claims in the application are patentable. Accordingly, reconsideration and allowance of this application are earnestly solicited. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number provided below.

Respectfully submitted,

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By: David J. Huffaker
David J. Huffaker, Reg. No. 56,771
(858) 845-2110

QUALCOMM Incorporated
5775 Morehouse Drive
San Diego, California 92121
Telephone: (858) 658-5787
Facsimile: (858) 658-2502

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Appendix A (Replacement Drawing Sheets)

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